**The Fence Reflection**

*Reflections on planning and instruction*

The timing on this lesson was a bit tricky. I don’t think I anticipated accurately how long each section would take. I also think the day we spent on the rug when I demo-ed one of the strategies mentioned in the unit guide was not super successful. In retrospect, I think that day could have been stronger if I had 1. Kept the pacing up 2. Checked for comprehension more frequently and 3. Made the day’s objective clearer from the outset.

*Reflections on student learning*

This was a tricky lesson, and I saw a lot of students rising to the occasion. I was especially interested in students exploring new and novel ways to represent their thinking on their posters. I think a lot of partnerships grew through the poster-making process. Instead of just copying information from their worksheets, I saw students stretching their thinking (expanding claims, coming up with new options, making generalizations, or using new representations) as they made their posters.

*Implications for the future*

I think in the future, the idea of equivalence could be mentioned more often and by name. If I were to teach this lesson again, I would limit the options for strategies (eg insist that students use a double number line).

*Implied or useful capacities and skills*

* Double number line
* Understanding of perimeter
* Organizational skills (keeping track of combinations)

**The Combination Chart**

*Reflections on planning and instruction*

I do think the timing for this lesson worked out pretty well. I wanted to make sure students had enough time to explore the combination chart in their partnerships. However, if I were to re-teach this lesson, I might have done more explicit modeling (completing more rows, for example) on the rug *or* kept some groups on the rug who felt unclear and let other partnerships get started. I think a lot of groups felt a bit stuck, and that could’ve alleviated some of the stuck-ness. On the other hand, I did see some very nice breakthroughs/realizations, so perhaps the less filled out minilesson was okay.

*Reflections on student learning*

I saw a lot of engagement during this lesson! The objective was clear—complete the chart, then complete the questions—and the task was challenging without being overwhelming. I think there was a nice balance that let kids enjoy the grappling without feeling out of control. During the share, it seemed like kids were making some nice connections and understanding the broader purpose of the lesson. For example, when Lesley asked, “Why couldn’t we do this before?” it seemed clear that she understood how the combination chart could help solve the fence problem. I’m wondering if all students understood that same connection Lesley made.

*Implications for the future*

In the future, I might make sure students who needed them had multiplication tables available. Automaticity with math facts doesn’t need to be an obstacle to figuring out the puzzle of the combination chart. I would’ve like to have had more time to discuss some of the questions and connect back to the Fences problem, if I were to re-teach this lesson.

*Implied or useful capacities and skills*

* Experience with coordinate graphing might be useful to understanding how the chart works
* Interestingly, just one day before this lesson (I think!), I saw some students playing Battleship during indoor recess and thought, “Oh! Great!”